

### Amendments to the Claims:

1. (Currently amended) Method for functionalizing polysaccharides using a source of free radicals, which forms stable radicals on ~~the~~ a polysaccharide structure ~~and~~, wherein at least one of the formed radicals reacts with a functionalized olefin, ~~characterized in that the method comprises two steps comprising:~~
  - a first step, wherein ~~the~~ a free radical on ~~the~~ a polysaccharide chain is formed, and
  - a second step, wherein said radical reacts with ~~the~~ an olefin in the absence of ~~the~~ a radical source; andthe polysaccharide is in the form of a fiber.
2. (Currently amended) Method according to claim 1, wherein ~~the~~ a source of free radicals is a chemical source or a physical source.
3. (Currently amended) Method according to claim 2, wherein the physical source is selected from cold plasma and electron beam radiation, and the chemical source is Fenton's reagent.
4. (Currently amended) Method according to ~~claims 1-3~~ claim 1, wherein the polysaccharide is selected from the group consisting of flax, cellulose, viscose, ~~cotton~~, starch and cotton.
5. (Currently amended) Method according to claim 4, wherein the polysaccharide is used together with one or more natural or synthetic fibers.
6. (Currently amended) Method according to claim 5, wherein the natural or synthetic fibers are selected from silk, polyamide, polyester, polyacrylate and polyolefin.

7. (Currently amended) Method according to ~~claims 1-6~~ claim 1, wherein, in the first step, the ~~radicals are~~ free radical is generated by electron beam ~~and the~~ having a radiation dose ~~is comprised~~ between 10 and 400 kGy.

8. (Currently amended) Method according to claim 7, wherein the radiation dose is ~~comprised~~ between 20 and 200 kGy.

9. (Canceled)

10. (Currently amended) Method according to ~~claims 1-9~~ claim 1, wherein the stable radicals have a half-life of about 1 day.

11. (Currently amended) Polysaccharides obtainable by the method of ~~claims 1-10~~ claim 1.

12. (Currently amended) Polysaccharides according to claim 11, wherein ~~the~~ a ratio mol olefin/eq anhydrous glucose is ~~comprised~~ between  $10^{-3}$  and 2, ~~preferably~~ between  $10^{-2}$  and 1.

13. (Currently amended) Process for the preparation of ~~functionalised~~ functionalized polysaccharides or polymer fibers ~~which process comprises~~ comprising:

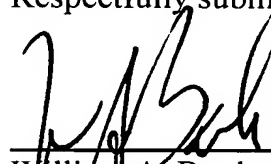
- a) forming stable radicals on ~~the~~ a polysaccharide from a free radical source; and
- b) reacting, in the absence of the free radical source, an olefin containing a functional group with the stable radicals on the polysaccharide.

14. (New) Polysaccharides according to claim 12, wherein the ratio is between  $10^{-2}$  and 1.

**Remarks:**

Please enter the amended claims before calculating the filing fee.

Respectfully submitted,



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September 14, 2004